

Acoustic Integrity (Sound Reduction)

When we talk about "Acoustic Integrity," we are measuring how well our access panels act as a "plug" in a wall or ceiling to prevent noise from leaking through the opening.

1. The Decibel (dB) Rating

- **The Technical Bit:** Rated up to 40dB Sound Reduction.
- **What it means:** The Decibel (dB) scale measures the amount of sound the panel "stops."
- **Why it matters:** In an office or hotel, you don't want to hear the plumbing or air conditioning units behind the wall. A higher dB rating means a quieter room.

2. The Role of the "Perimeter Seal"

- **The Technical Bit:** Designed with a tight perimeter seal for acoustic integrity.
- **What it means:** Sound behaves like water—if there is a tiny gap (even a millimeter), sound will "pour" through it. Our panels use a continuous, high-performance gasket or seal that compresses when the door is locked.
- **Why it matters:** Without this seal, even a heavy steel door would fail to block noise. The seal ensures that the gap between the door and the frame is completely airtight.

3. Laboratory vs. On-Site Performance

- **What it means:** Our acoustic results are achieved in a controlled laboratory environment.
- **Why it matters:** To achieve the rated sound reduction in a real building, the "aperture" (the hole in the wall) must be sealed correctly. If the gap between our frame and your plasterboard isn't filled with acoustic mastic, sound will bypass the door entirely.

4. Why Acoustics & Fire Ratings Often Go Together

- **You will notice many of our Fire Rated panels also have high Acoustic ratings.**
- **Why?** The heavy mineral wool insulation and thick steel used to stop fire are also excellent at absorbing sound waves. Additionally, the seals required to stop smoke are very effective at stopping noise.

5. Acoustic "Rule of Thumb"

Noise Level	What it feels like	Recommended Panel
Low	Standard office background noise.	Standard Seal
Medium	Nearby conversations or quiet hallway.	Acoustic Rated (25-30dB)
High	Plant rooms, pipes, or loud machinery.	High Performance (35dB+)